



Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE
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Matthew J. Strickler
Secretary of Natural Resources

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**STATE WATER CONTROL BOARD
ENFORCEMENT ACTION - ORDER BY CONSENT
ISSUED TO
DU PONT TEIJIN FILMS U.S. LIMITED PARTNERSHIP
FOR
DU PONT TEIJIN FILMS, HOPEWELL SITE
VPDES Permit No. VA0003077**

SECTION A: Purpose

This is a Consent Order issued under the authority of Va. Code § 62.1-44.15, between the State Water Control Board and Du Pont Teijin Films U.S. Limited Partnership regarding the Du Pont Teijin Films, Hopewell Site for the purpose of resolving certain violations of the State Water Control Law and the applicable permit and regulation. This Order supersedes and terminates the Consent Order issued by the State Water Control Board to Du Pont Teijin Films U.S. Limited Partnership on August 17, 2017.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below:

1. "305(b) report" means the report required by Section 305(b) of the Clean Water Act (33 United States Code § 1315(b)), and Va. Code § 62.1-44.19:5 for providing Congress and the public an accurate and comprehensive assessment of the quality of State surface waters.
2. "Board" means the State Water Control Board, a permanent citizens' board of the Commonwealth of Virginia, as described in Va. Code §§ 10.1-1184 and 62.1-44.7.
3. "BOD" means biochemical oxygen demand.

4. "CBOD" means carbonaceous biochemical oxygen demand.
5. "Category 5D waterbody" means the water quality standard is not attained where TMDLs for a pollutant(s) have been developed but one or more pollutants are still causing impairment requiring additional TMDL development.
6. "cfu" means colony forming units.
7. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia, as described in Va. Code § 10.1-1183.
8. "Director" means the Director of the Department of Environmental Quality, as described in Va. Code § 10.1-1185.
9. "Discharge" means discharge of a pollutant. 9 VAC 25-31-10.
10. "Discharge of a pollutant" when used with reference to the requirements of the VPDES permit program means:
 - (a) Any addition of any pollutant or combination of pollutants to surface waters from any point source; or
 - (b) Any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.
11. "DMR" means Discharge Monitoring Report.
12. "DTF" means Du Pont Teijin Films U.S. Limited Partnership a limited partnership authorized to do business in Virginia and its affiliates, partners and subsidiaries. DTF is a "person" within the meaning of Va. Code § 62.1-44.3.
13. "Effluent" means wastewater – treated or untreated – that flows out of a treatment plant, sewer, or industrial outfall.
14. "EPA" means the Environmental Protection Agency.
15. "Facility" means the wastewater treatment system located at DuPont Teijin Films, 3600 Discovery Drive, Chesterfield, Virginia. The wastewater treatment system is comprised of two treatment plants. One plant is a process wastewater treatment plant and the second plant is a sanitary wastewater treatment plant. The process wastewater plant discharges through internal Outfall 101 and the sanitary wastewater plant discharges through internal Outfall 102. Both Outfalls 101 and 102 ultimately discharge to the James River via Outfall

001. These plants operate, treat and discharge treated effluent from DTF's business operations under VPDES Permit No. VA0003077.

16. "MGD" means million gallons a day.
17. "Notice of Violation" or "NOV" means a type of Notice of Alleged Violation under Va. Code § 62.1-44.15.
18. "O&M" means operations and maintenance.
19. "Order" means this document, also known as a "Consent Order" or "Order by Consent," a type of Special Order under the State Water Control Law.
20. "PCBs" means polychlorinated biphenyls.
21. "Permit" means VPDES Permit No. VA0003077, which was issued under the State Water Control Law and the Regulation to DTF on March 1, 2017 and expires on February 28, 2022.
22. "Pollutant" means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 USC § 2011 *et seq.*)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water... 9 VAC 25-31-10.
23. "Pollution" means such alteration of the physical, chemical, or biological properties of any state waters as will or is likely to create a nuisance or render such waters (a) harmful or detrimental or injurious to the public health, safety, or welfare or to the health of animals, fish, or aquatic life; (b) unsuitable with reasonable treatment for use as present or possible future sources of public water supply; or (c) unsuitable for recreational, commercial, industrial, agricultural, or other reasonable uses, provided that (i) an alteration of the physical, chemical, or biological property of state waters or a discharge or deposit of sewage, industrial wastes or other wastes to state waters by any owner which by itself is not sufficient to cause pollution but which, in combination with such alteration of or discharge or deposit to state waters by other owners, is sufficient to cause pollution; (ii) the discharge of untreated sewage by any owner into state waters; and (iii) contributing to the contravention of standards of water quality duly established by the Board, are "pollution." Va. Code § 62.1-44.3.
24. "PRO" means the Piedmont Regional Office of DEQ, located in Glenn Allen, Virginia.
25. "Regulation" means the VPDES Permit Regulation, 9 VAC 25-31-10 *et seq.*
26. "State Water Control Law" means Chapter 3.1 (§ 62.1-44.2 *et seq.*) of Title 62.1 of the Va. Code.

27. "State waters" means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands. Va. Code § 62.1-44.3
28. "Tier 1 water" means a water body which meets all adopted water quality standards and in which all existing instream water uses and level of water quality must be maintained and protected.
29. "TMDL" means total maximum daily load.
30. "Va. Code" means the Code of Virginia (1950), as amended.
31. "VAC" means the Virginia Administrative Code.
32. "VPDES" means Virginia Pollutant Discharge Elimination System.
33. "WLA" means waste load allocation.

SECTION C: Findings of Fact and Conclusions of Law

1. DTF owns and operates two wastewater treatment plants at the Facility. One plant is a process wastewater treatment plant and the second plant is a sanitary wastewater treatment plant. The process wastewater plant discharges through internal Outfall 101 and the sanitary wastewater plant discharges through internal Outfall 102. Flow from both Outfalls 101 and 102 combine and ultimately discharge to the James River via Outfall 001. These plants operate under the Permit which allows DTF to discharge treated sewage and other industrial wastes from the Facility, in strict compliance with the terms and conditions of the Permit.
2. During the 2016 305(b)/303(d) Integrated Water Quality Assessment, the James River was assessed as a Category 5D waterbody. The Aquatic Life Use is impaired due to inadequate submerged aquatic vegetation (SAV), chlorophyll *a* criteria exceedances, and an altered benthic community. The Recreation Use is impaired due to *E. coli* exceedances. The Fish Consumption Use is impaired due to a Virginia Department of Health fish advisory for PCBs and due to exceedances of the water quality standard for PCBs; in addition, arsenic, mercury and kepone are considered non-impairing "observed effects". The Public Water Supply Use is impaired due to PCBs in the water column. The Wildlife Use is fully supporting. The James River is considered a Tier 1 water.
3. DTF was included in the Chesapeake Bay TMDL, which was approved by the EPA on December 29, 2010. The Facility is included in the aggregated wasteload allocations for total nitrogen, total phosphorus, and total suspended solids for non-significant wastewater dischargers in the upper tidal freshwater James River estuary (JMSTF2). In addition, the Facility was addressed in the James River and Tributaries – City of Richmond Bacterial

TMDL, which was approved by the EPA on November 4, 2010, and the Board on June 29, 2012. The Facility was initially assigned an *E. coli* wasteload allocation (WLA) of 1.74E+12 cfu/year; however, DTF subsequently reduced flow from the Facility to 0.009 MGD and the WLA was reduced to 1.57E+10 cfu/year through an interim modification.

4. On February 2, 2018 DTF reported a phosphorus exceedance of 2.97 mg/l vs a permit limit of 2.0 mg/l at outfall 001 during the month of January 2018. On February 7, 2018, DTF submitted a 5-day follow-up report on the phosphorus exceedance. DTF stated that in an effort to control and stabilize influent instability, DTF staff manually added a small amount of phosphorus to each aeration basin a few days before one of the weekly samples was taken. DTF believes this manual addition caused an increased sample result, ultimately pushing them over the monthly average permit limit. DTF is currently working with a consultant to better understand the implications of manual nutrient addition versus an automatic and more routine nutrient addition based on the quality and quantity of influent from production.
5. On March 2, 2018, DTF reported a phosphorus exceedance (3.6 mg/L) at outfall 001 during the month of February 2018. On March 7, 2018, DTF submitted a written follow-up report stating that the wastewater treatment plant was experiencing increased phosphorus loading from an unknown upstream location. After numerous communications with the upstream production areas (including the polymer plant, film plant and coating group), it was determined that a potential source of phosphorus to the bio plant was coming from the sink in the 3rd floor catalyst prep area. DTF eliminated this as a potential source in the future by re-routing the sink drain to feed into the Crude Ethylene Glycol tanks to be processed through the stills.
6. On March 7, 2018, in an effort to reduce the incoming phosphorus concentration at the bio plant, DTF requested approval for Klaraid IC1173, a treatment chemical, to reduce phosphorus concentrations entering the Facility treatment plant.
7. On March 16, 2018, the Department issued Warning Letter W2018-02-P-1023 to DTF for the phosphorus violation reported on the January 2018 DMR.
8. On March 22, 2018, the Department, after reviewing aquatic toxicity data, issued a letter to DTF informing them the Department had no objection to the use of Klaraid IC1173. DTF achieved compliance with Permit limits for total phosphorus after implementing the use of Klaraid IC1173.
9. On April 12, 2018, the Department issued Notice of Violation (NOV) W2018-04-P-0001 to DTF for the phosphorus violations reported on January and February 2018 Discharge Monitoring Reports (DMRs).
10. On May 18, 2018, DTF reported a BOD exceedance at outfall 101 during the week of May 7th. On May 23, 2018, DTF submitted a written follow-up report stating that the wastewater treatment was plant experiencing high COD loading from an unknown manufacturing

source. DTF staff observed increased loading, and made flow adjustments recycling treated permeate water back to the head of the treatment plant in an effort to stay within permit limits. DTF created a statistical model which allows targeted BOD results below permit limits based on in house COD results. The use of this model will enable DTF the ability to exercise greater control during times of instability in order to stay within permit compliance. DTF stated they are also working with an environmental consultant to determine if there are additional BOD removal options.

11. On, August 20, 2018, the Department held a conference with DTF to discuss the citations in the NOV issued April 12, 2018.
12. DTF's Permit limit for E. coli is 126 #/100ml. On September 11, 2018 DTF reported an E. coli permit limit exceedance (>182.1) at outfall 102 during the month of August 2018. On September 14, 2018, DTF submitted a written follow-up report stating an investigation revealed that two of four diffuser heads of the aeration system were partially clogged with debris. They cleaned the two diffusers and reseeded the basin. DTF also stated that they received one greater than result from James R. Reed & Associates Lab during the month of August. A request was sent via email to the lab to analyze all future E. coli samples with an additional 1:20 dilution to avoid receiving a greater than result. James R. Reed & Associates provided DTF with a signed letter confirming that all future E. coli samples would be analyzed with the additional dilution.
13. On October 10, 2018, DTF emailed the Department to report an E. coli permit limit exceedance (>307.9) at outfall 102. DTF also reported the exceedance on the October 2018 DMR. On October 15, 2018, DTF submitted a written follow-up report stating it is believed that Outfall 102 E. coli concentrations rose during this time due to increased cleaning efforts within the Film Plant. DTF has made contact with upstream production areas to better understand current management and disposal practices of all floor cleaning products as they relate to site procedures. Such cleaning products have been proven to be toxic to sanitary and bio plant bio health if improperly disposed so DTF is reviewing the training associated with the correct use and disposal of such cleaning chemicals. In addition, DTF has initiated the process of putting a preventative maintenance plan in place to pull the sanitary diffuser heads on a scheduled frequency to confirm treatment efficiency.
14. On December 6, 2018, the Department issued NOV No.W2018-12-P-0001 to DTF for E. coli violations reported on the August and October 2018 DMRs.
15. DTF's records indicate that it discharged treated wastewater from the Facility every day from January 1, 2018, through December 15, 2018.
16. Va. Code § 62.1-44.5 states that: "except in compliance with a certificate issued by the Board, it shall be unlawful for any person to discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances."

17. The Regulation, at 9 VAC 25-31-50, also states that except in compliance with a VPDES permit, or another permit issued by the Board, it is unlawful to discharge into state waters sewage, industrial wastes or other wastes.
18. Va. Code § 62.1-44.15(5a) states that a VPDES permit is a “certificate” under the statute.
19. The Department has issued no other VPDES permits or certificates regarding the operating requirements discussed herein to DTF other than VPDES Permit No. VA0003077.
20. The James River is a surface water located wholly within the Commonwealth and is a “state water” under State Water Control Law.
21. Based on DTF’s Discharge Monitoring Reports, the April 16, 2018, and December 6, 2018 NOV’s and the August 20, 2018, conference, the Board concludes that DTF has violated the Permit, Va. Code § 62.1-44.5 and 9 VAC 25-31-50, by discharging treated effluent from the Facility while concurrently failing to comply with the conditions of the Permit, as described in the paragraphs above.
22. In order for DTF to complete its return to compliance, DEQ staff and representatives of DTF have agreed to the Schedule of Compliance, which is incorporated as Appendix A of this Order.

SECTION D: Agreement and Order

Accordingly, by virtue of the authority granted it in Va. Code §§ 62.1-44.15, the Board orders DTF and DTF agrees to:

1. Perform the actions described in Appendix A of this Order; and
2. Pay a civil charge of \$8,900.00 within 30 days of the effective date of the Order in settlement of the violations cited in this Order.

Payment shall be made by check, certified check, money order or cashier’s check payable to the “Treasurer of Virginia,” and delivered to:

Receipts Control
Department of Environmental Quality
Post Office Box 1104
Richmond, Virginia 23218

Both the Board and the DTF understand and agree that this Order supersedes and terminates the Consent Order issued by the Board to DTF on August 17, 2017.

DTF shall include its Federal Employer Identification Number (FEIN) with the civil charge payment and shall indicate that the payment is being made in accordance with the requirements of this Order for deposit into the Virginia Environmental Emergency Response Fund (VEERF). If the Department has to refer collection of moneys due under this Order to the Department of Law, DTF shall be liable for attorneys' fees of 30% of the amount outstanding.

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend this Order with the consent of DTF for good cause shown by DTF, or on its own motion pursuant to the Administrative Process Act, Va. Code § 2.2-4000 *et seq.*, after notice and opportunity to be heard.
2. This Order addresses and resolves only those violations specifically identified in Section C of this Order. This Order shall not preclude the Board or the Director from taking any action authorized by law, including but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the facility; or (3) taking subsequent action to enforce the Order.
3. For purposes of this Order and subsequent actions with respect to this Order only, DTF admits the jurisdictional allegations, findings of fact, and conclusions of law contained herein.
4. DTF consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order
5. DTF declares it has received fair and due process under the Administrative Process Act and the State Water Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to modify, rewrite, amend, or enforce this Order.
6. Failure by DTF to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.
7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.
8. DTF shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war,

strike, or such other unforeseeable circumstances beyond its control and not due to a lack of good faith or diligence on its part. DTF shall demonstrate that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. DTF shall notify the DEQ Regional Director verbally within 24 hours and in writing within three business days when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:

- a. the reasons for the delay or noncompliance;
- b. the projected duration of any such delay or noncompliance;
- c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and
- d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

Failure to so notify the Regional Director verbally within 24 hours and in writing within three business days, of learning of any condition above, which the parties intend to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

9. This Order is binding on the parties hereto and any successors in interest, designees and assigns, jointly and severally.
10. This Order shall become effective upon execution by both the Director or his designee and DTF. Nevertheless, DTF agrees to be bound by any compliance date which precedes the effective date of this Order.
11. This Order shall continue in effect until:
 - a. The Director or his designee terminates the Order after DTF has completed all of the requirements of the Order;
 - b. DTF petitions the Director or his designee to terminate the Order after it has completed all of the requirements of the Order and the Director or his designee approves the termination of the Order; or
 - c. the Director or Board terminates the Order in his or its sole discretion upon 30 days' written notice to DTF.

Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve DTF from its obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

12. Any plans, reports, schedules or specifications attached hereto or submitted by DTF and approved by the Department pursuant to this Order are incorporated into this Order. Any non-compliance with such approved documents shall be considered a violation of this Order.
13. The undersigned representative of DTF certifies that he or she is a responsible official or officer authorized to enter into the terms and conditions of this Order and to execute and legally bind DTF to this document. Any documents to be submitted pursuant to this Order shall also be submitted by a responsible official of DTF.
14. This Order constitutes the entire agreement and understanding of the parties concerning settlement of the violations identified in Section C of this Order, and there are no representations, warranties, covenants, terms or conditions agreed upon between the parties other than those expressed in this Order.
15. By its signature below, DTF voluntarily agrees to the issuance of this Order.

And it is so ORDERED this _____ day of _____, 2019.

Kyle Ivar Winter, P.E.
Department of Environmental Quality
Piedmont Regional Director

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Du Pont Teijin Films U.S. Limited Partnership voluntarily agrees to the issuance of this Order.

Date: 05/29/19 By: Simon Shepherd, for Teijin-DuPont Films, Inc.,
(Person)

General Partner for Du Pont Teijin Films U.S. Limited Partnership

Commonwealth of Virginia

City/County of Chesterfield

The foregoing document was signed and acknowledged before me this 29th day of
May, 2019, by Simon Shepherd, for Teijin-DuPont
Films, Inc., General Partner, on behalf of DuPont Teijin Films U.S. Limited Partnership, a
limited partnership.

Midori Ousey Stone
Notary Public

7503039

Registration No.

My commission expires: June 30, 2023

Notary seal:



APPENDIX A

DTF shall:

1. Increase the frequency of inspections on the aeration system diffuser heads. The procedure must be described in the Facility O&M manual and records must be kept and made available during Department inspections. Within 60 days of the issuance of this Order submit a copy of the O&M manual to the Department.
2. Beginning with issuance of this Order and for a period of one year, analyze E. Coli weekly at outfall 001, instead of annually, to determine if there is an issue caused by the high E. Coli discharging through outfall 001. Report the results on the monthly discharge monitoring reports and submit a monthly summary of the results to the Department contact listed below. If the Department determines that additional time is required to resolve E. Coli issues, the weekly frequency shall be extended for another year.
3. Within 60 days of the issuance of this Order, conduct a diagnostic engineering analysis of the disinfection system and develop a corrective action plan (CAP) and schedule to improve and/or upgrade the system to consistently meet E. coli Permit limits.
4. Within 90 days of the issuance of this Order, submit the diagnostic engineering analysis and the CAP to the Department for review and approval. Implement the plan immediately upon Department approval.
5. Within two weeks of the issuance of this Order, submit to the Department a report outlining the COD/BOD statistical model used to control flows during times of instability. Once the Department has reviewed and approved the statistical procedure, describe it in the Facility O&M manual within two weeks of approval.
6. Within sixty days of the issuance of this Order, submit a report with the findings and conclusions provided to DTF by contractors on additional BOD removal options. An implementation schedule shall be included that, when approved by the Department, shall become an enforceable part of this Order.

Documents to be submitted to the Department, other than the civil charge payment described in Section D of the Order, shall be sent to:

Frank Lupini
VA DEQ
P.O. Box 1105,
Richmond, Virginia 23218

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Frank.Lupini@deq.virginia.gov